

COASTAL CONSERVANCY

Staff Recommendation
December 11, 2003

SALMON CREEK ESTUARY ENHANCEMENT PLAN

File No. 03-022
Project Manager: Richard Retecki

RECOMMENDED ACTION: Authorization to disburse up to \$300,000 to the Occidental Arts and Ecology Center to prepare an enhancement plan for the Salmon Creek estuary in southwestern Sonoma County.

LOCATION: Salmon Creek Estuary, southwestern Sonoma County (Exhibits 1, 2, and 3)

PROGRAM CATEGORY: Resource Enhancement

EXHIBITS

- Exhibit 1: Sonoma County in the Bay Area Region
 - Exhibit 2: Salmon Creek Watershed Map
 - Exhibit 3: Wetland Resources of Salmon Creek
 - Exhibit 4: List of Salmon Creek Watershed Projects
 - Exhibit 5: Letters of Support
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RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31251-31270 of the Public Resources Code:

"The State Coastal Conservancy hereby authorizes the disbursement of an amount not to exceed three hundred thousand dollars (\$300,000) to the Occidental Arts and Ecology Center (OAEC) for the preparation of an enhancement plan for the Salmon Creek estuary in southwestern Sonoma County, subject to the condition that prior to the disbursement of any funds, the Executive Officer of the Conservancy shall approve in writing a detailed work program, a budget and schedule, and the names of any contractors and subcontractors to be employed."

Staff further recommends that the Conservancy adopt the following findings:

"Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed authorization is consistent with the purposes and objectives of Chapter 6 of Division 21 of the Public Resources Code.

2. The proposed authorization is consistent with the Project Selection Criteria and Guidelines adopted by the Conservancy on January 24, 2001.
 3. The Occidental Arts and Ecology Center is a nonprofit organization existing under Section 501(c)(3) of the U.S. Internal Revenue Code, and whose purposes are consistent with Division 21 of the Public Resources Code."
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PROJECT SUMMARY:

Project Description: The Occidental Arts and Ecology Center (OAEC) will prepare an enhancement plan with implementation recommendations for the Salmon Creek estuary. The OAEC has extensive experience with watershed, fishery habitat, and biodiversity planning and implementation, and is currently working with and advising other agencies and nonprofit organizations working within the watershed. This authorization will complete the Conservancy's comprehensive approach for Salmon Creek watershed planning which was begun in April of 2003. For a list of ongoing watershed projects, see Exhibit 4.

In order to prepare the enhancement plan, the OAEC will first compile a history of the Salmon Creek estuary that will include: its size, present and historic land uses, historical information, natural features, depths and temperature strata, fish populations, flood history, and stream bottom topography. The "history" will be compiled into a report for project and archival use, and will be made available for general distribution.

Next, the OAEC will measure the extent of sandbars and their elevation and the changes they undergo throughout the year. Monitoring of sandbar development and breaching, estuary water surface, and sediment accumulation will provide data for assessing sediment flushing and estuary enhancement potential. Monitoring of water quality, rate of flow, and nutrient levels will also be conducted at numerous locations during the development of the plan to assess habitat quality.

Another major portion of the work will be the assessment of upstream watershed and channel conditions that directly contribute to salmon and steelhead existence and restoration in the estuary. The Department of Fish and Game and the Gold Ridge Resource Conservation District (RCD) will be working with the OAEC to supplement its upstream assessment efforts. Both agencies are currently measuring watershed and stream conditions that relate to the presence of steelhead and salmon. Stream-flow and water quality are essential baseline data categories that will be monitored by the OAEC. The OAEC will also compile pertinent information about the number and locations of water diversions—their impact during crucial salmonid and steelhead use periods, and the type and extent of vegetation cover—and will also prepare a general water balance for the watershed.

The OAEC will then develop a series of enhancement recommendations to improve estuary habitat quality. The OAEC will conduct several public meetings to present the plan and its goals to the public and other public agencies. It is necessary for the success of the project that the OAEC establish contact with watershed landowners and those who are also working within the watershed. The participation of willing landowners who allow access to their property for measuring and monitoring is crucial to project completion and eventual project implementation.

This authorization will complete the Conservancy's study and planning approach for the Salmon Creek watershed, which include: the Coastal Grazing Handbook; the Coastal Prairie Stewardship

Study; the Gold Ridge RCD Ranch Management Plans; the Salmon Creek Green School Project; and, the Salmon Creek Estuary Study. All of the funded projects will contain project implementation recommendations that, when completed, will provide “on the ground” restoration and/or enhancement to improve the entire watershed and the estuary.

Site Description: The Salmon Creek watershed covers approximately 35 square miles and includes a series of six parallel tributaries that flow southward draining watersheds of mixed conifer forests and grasslands into the main stream. The watershed is located where three prominent environmental/geologic landscapes converge: the Mendocino Highlands, the Great Valley Sequence, and the Merced Formation (Exhibit 2). Each contains different surficial and sub-surface geology and soils which respond to natural factors differently to produce their own distinct landforms, habitat, and vegetation. The headwaters are near the town of Occidental, from where the stream flows down-slope in a southerly direction before it turns westward near Freestone, to enter the ocean through its estuary, about two miles north of Bodega Bay. The small picturesque coastal settlement of Salmon Creek hovers on the south bank of the estuary between Highway 1 and the sand dunes to the west.

The Salmon Creek estuary is narrow and bustling with shore life. At times during the year, a sand bar forms which closes the mouth of the creek. Sediment from hillside and bank erosion caused by manmade and natural events has reduced the estuary’s surface area by 30 percent and severely degraded fish spawning habitat. Strong stream flows are usually needed to breach the sand bar and provide salt and freshwater exchange, as well as passage for anadromous fish.

Salmon Creek was once a thriving coho salmon stream but the last known siting occurred in 1998. Steelhead are still found in the main stream and some tributaries but the system is not supporting populations anywhere near the historic numbers.

The watershed is almost entirely privately owned. The small communities of Occidental, Freestone, Bodega, and Salmon Creek are found in the watershed. The Joy Road corridor and areas along Coleman Valley Road have experienced a considerable amount of rural residential development. The remainder of the watershed land is made up of ranches. Most of the ranches are a combination of open range and forested areas except those nearer to the coast which are open grasslands.

Project History: The Sonoma County Coastal Wetland Enhancement Plan, adopted by the Conservancy in May of 1987, identifies Salmon Creek as impaired and states that gully erosion, loss of ground-cover, bank erosion, loss of riparian habitat, and sedimentation are common in the watershed. The plan also states that the tributaries to Salmon Creek will continue to provide higher rates of sedimentation than would normally occur unless measures are implemented to reverse environmental damage. Sedimentation will continue to degrade the estuary and marsh areas and will impact fish and aquatic habitat. This project will help to address these problems.

Unlike other watersheds studied in the 1987 plan, Salmon Creek has had very little, if any, coordinated research and planning conducted on the watershed. Focus has turned to Salmon Creek as enhancement work in other watersheds is in progress, or being completed. This authorization will identify and design implementation projects that will help restore the entire watershed, and specifically target the estuary.

The watershed is also experiencing the birth of effective local groups and nonprofit organizations that are positively focused on the rejuvenation and health of Salmon Creek. Active organizations

in the watershed include: the Bodega Land Trust; the Salmon Creek Watershed Council, the Gold Ridge RCD, the Harmony Union School District, Ocean Song Farm and Wilderness Center, and the Occidental Arts and Ecology Center.

PROJECT FINANCING:

Coastal Conservancy	\$300,000
California Department of Fish and Game	187,000
Occidental Arts and Ecology Center	<u>70,000</u>
Total Project Cost	\$557,000

The expected source of Conservancy funds is the FY 02-03 appropriation to the Conservancy from the California Clean Water, Clean Air, Safe Neighborhood Parks and Coastal Protection Fund (Proposition 40). Proposition 40 funds may be used, as proposed here, for the restoration and enhancement of watershed and coastal resources, in accordance with the provisions of the Conservancy's enabling legislation, Division 21 of the Public Resources Code. Proposition 40 also requires the Conservancy to give priority to grant projects with matching funds (Public Resources Code Section 5096.651). A significant portion of the Salmon Creek Estuary Plan is supported by matching funds.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

This project is consistent with Chapter 6 of the Conservancy's enabling legislation, regarding the enhancement of coastal resources.

Section 31251 of the Public Resources Code authorizes the Conservancy to award grants to local public agencies and nonprofit organizations for the purpose of enhancement of coastal resources, including watershed resources that lie partly outside the coastal zone. The proposed project seeks to assist in the enhancement of the Salmon Creek watershed that has suffered degradation as anadromous fish habitat due to increased erosion and sedimentation. The enhancement plan will focus on determining the present condition of the estuary, recommending a series of improvements for the estuary and its environs, and producing a list of projects for implementation.

Section 31252 requires that all areas proposed for enhancement be identified in a certified local coastal plan or program as requiring public action to resolve existing or potential resource concerns. The Salmon Creek estuary and watershed is specifically recognized by the Sonoma County Local Coastal Program as a "special resource area," requiring protection and restoration.

Section 31253 enables the Conservancy to provide up to the total cost of any enhancement project. The Conservancy's contribution is matched by funds from the California Department of Fish and Game and the Occidental Arts and Ecology Center. Further, as permitted by §31257, the Conservancy is providing funds up to, but not greater than, \$300,000 for the enhancement planning.

**CONSISTENCY WITH CONSERVANCY'S
STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):**

Consistent with **Goal 6, Objectives A and B** of the Conservancy's Strategic Plan, the proposed project will result in the development of plans to preserve a coastal watershed and thereby assist in improvement of water quality to the benefit of coastal resources.

Consistent with **Goal 7, Objective B**, the proposed enhancement plan will assist farmers and ranchers in efforts to reduce the impacts of agricultural operations on wildlife habitat and water quality.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines adopted January 24, 2001, in the following respects:

Required Criteria

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.
2. **Consistency with purposes of the funding source:** See "Project Financing" section above.
3. **Support of the public:** The proposed project is supported by public agencies, environmental organizations, community groups, and landowners, including Congresswoman Lynn Woolsey, State Senator Wes Chesbro, Assembly Member Patty Berg, California Department of Fish and Game, the California Department of Parks and Recreation, the Gold Ridge RCD, the Bodega Land Trust, and the Harmony Union School District (see Exhibit 5).
4. **Location:** The Salmon Creek estuary and watershed lie partly inside and partly outside the coastal zone, and is a coastal watershed with valuable and diverse resources and habitat. The estuary study and plan and implementation recommendations will benefit the watershed as well as inland and coastal resources.
5. **Need:** Without Conservancy assistance this project would not move forward. This project is crucial to the comprehensive approach that the Conservancy has established for restoration and enhancement of the Salmon Creek watershed. The development of the estuary study and enhancement plan is necessary to develop implementation measures that will begin to restore this valuable coastal watershed.
6. **Greater-than-local interest:** The estuary study and plan will lead to the restoration of the estuary and the watershed. The Salmon Creek estuary and watershed have a prominent regional setting in an area of diverse natural resources and splendid natural beauty, and they are part of a coastal system that is a major tourist and recreation destination. The estuary study and plan will address existing environmental problems that have degraded the estuary and its watershed, and assist with efforts to restore anadromous fisheries, results that are favored by involved stakeholders throughout the San Francisco Bay Area and northern California.
7. **Urgency:** Years of increased upland erosion and loss of riparian habitat have reduced the Salmon Creek estuary in size and quality. Also, the increased sedimentation and higher temperature strata have made the estuary and main-stream unhealthy locations for coho salmon. The study and plan will recommend measures to restore the vitality of the estuary and to restore riparian habitat, before even further harm and degradation occur.
8. **Resolution of more than one issue:** The estuary study and plan will begin to address and resolve the impacts of upland land use practices (both rural residential and agriculture) that have impacted the estuary and the watershed. Also, the plan will address the lost anadromous

fishery resource by improving water quality and decreasing the amount of sediment entering the creek and its tributaries.

12. **Readiness:** The OAEC is ready to begin the study, research, and landowner outreach portions of the project in February 2004. The study and plan are expected to be prepared over the next 15 months.
13. **Realization of prior Conservancy goals:** The Salmon Creek Estuary Study and Plan will recommend implementation measures that were discussed in the Sonoma County Coastal Wetland Enhancement Plan (1987). Throughout the watershed, some restoration and erosion control measures have been implemented, but nothing has been implemented in a coordinated way within the estuary and the watershed.
15. **Cooperation:** The estuary study and plan is a cooperative venture among the Conservancy, the OAEC, and the landowners within the watershed. The California Department of Fish and Game will also be providing funds and expertise for assessment of upland conditions and their impact on the estuary..

CONSISTENCY WITH THE COASTAL ACT:

The proposed authorization is consistent with Section 30231 of the Coastal Act, which states that “. . . the biological productivity of coastal waters, streams, wetlands, estuaries and lakes . . . shall be maintained and, where feasible, restored.”

CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:

The proposed authorization is consistent with the Sonoma County Local Coastal Program (LCP), certified in 1981 and revised on August 3, 1999, in the following respects: Subsection 9 (“Bodega Bay and Environs”) of Section III (“Resources: Environmental Resources”) of the LCP specifically references enhancement of the Salmon Creek watershed. It notes that Local Coastal planning and implementation may be conducted for the purposes of restoring and enhancing the estuary and marsh areas of Salmon Creek, and proposed that the riparian areas of the estuary and main-stream may be evaluated and projects implemented that will enhance and restore the natural riparian resource.

The LCP also identifies the need for public action and assistance to resolve existing problems in special resource areas, of which Salmon Creek is one. Priority policies are identified that relate to the protection of biological productivity and quality of coastal waters, streams, wetlands, and estuaries; special protection for species of biological or economic importance; the maintenance of marine resources; and the protection and restoration of riparian areas. The estuary study and plan will identify implementation activities that can be taken throughout the watershed to benefit estuary and coastal resources.

COMPLIANCE WITH CEQA:

The proposed project is statutorily exempt from review under the California Environmental Quality Act (CEQA) pursuant to 14 Cal. Code of Regulations Section 15262, in that it involves only planning studies and evaluation for possible future actions which the Conservancy has not approved, adopted, or funded. It is also categorically exempt under §15306, in that it consists of data collection, research, and resource evaluation. Staff will file a Notice of Exemption upon authorization of the project.